

What is Claimed is:

1. A data compression system comprising:
a level management device that identifies one or more portions of data to be selectively compressed; and
a data compression module that compresses the one or more portions of data.
2. The system of claim 1, further comprising a root module that updates portions of a document tree with pointers to the one or more portions of data.
3. The system of claim 2, wherein the document tree comprises a hierarchical structure of a document.
4. The system of claim 1, further comprising an index module that indexes the one or more portions of compressed data.
5. The system of claim 1, wherein the one or more portions of compressed data can be selectively decompressed.
6. The system of claim 1, wherein when the one or more portions of compressed data are selectively decompressed, one or more portions of other data remain compressed.
7. The system of claim 1, wherein the data compression system allows dynamic access to and updating of a content, a structure and a style of a document.
8. The system of claim 1, wherein the data compression scheme is based on a document object model for at least one of XML and HTML.
9. The system of claim 1, wherein a document comprises the one or more portions of data, an uncompressed document tree prefix, one or more compressed sub-tree fragments and an uncompressed fragment index.
10. The system of claim 1, wherein the level management device reads at least a portion of a hierarchically structured document.
11. A data decompression system comprising:

a level management device that identifies one or more portions of data to be selectively decompressed; and

a data decompression module that decompresses the one or more portions of data.

12. The system of claim 11, further comprising a root module that updates portions of a document tree with pointers to the one or more portions of data.

13. The system of claim 12, wherein the document tree comprises a hierarchical structure of a document.

14. The system of claim 11, further comprising an index module that indexes the one or more portions of data.

15. The system of claim 11, wherein one or more portions of compressed data can be selectively decompressed.

16. The system of claim 11, wherein when the one or more portions of compressed data are selectively decompressed, one or more portions of other data remain compressed.

17. The system of claim 11, wherein the data decompression system allows dynamic access to and updating of a content, a structure and a style of a document.

18. The system of claim 11, wherein the data decompression scheme is based on a document object model for at least one of XML and HTML.

19. The system of claim 11, wherein a document comprises the one or more portions of data, an uncompressed document tree prefix, one or more compressed sub-tree fragments and an uncompressed fragment index.

20. The system of claim 11, wherein the level management device reads at least a portion of a hierarchically structured document.

21. A data compression method comprising:

identifying one or more portions of data to be selectively compressed; and
compressing the one or more portions of data.

22. The method of claim 21, further comprising updating portions of a document tree with pointers to the one or more portions of data.

23. The method of claim 22, wherein the document tree comprises a hierarchical structure of a document.

24. The method of claim 21, further comprising indexing the one or more portions of compressed data.

25. The method of claim 21, wherein the one or more portions of compressed data can be selectively decompressed.

26. The method of claim 21, wherein when the one or more portions of compressed data are selectively decompressed, one or more portions of other data remain compressed.

27. The method of claim 21, further comprising allowing dynamic access to and updating of a content, a structure and a style of a document.

28. The method of claim 21, wherein the data compression scheme is based on a document object model for at least one of XML and HTML.

29. The method of claim 21, wherein a document comprises the one or more portions of data, an uncompressed document tree prefix, one or more compressed sub-tree fragments and an uncompressed fragment index.

30. The method of claim 21, further comprising reading at least a portion of a hierarchically structured document.

31. A data decompression method comprising:
identifying one or more portions of data to be selectively decompressed; and
decompressing the one or more portions of data.

32. The method of claim 31, further comprising updating portions of a document tree with pointers to the one or more portions of data.

33. The method of claim 32, wherein the document tree comprises a hierarchical structure of a document.

34. The method of claim 31, further comprising indexing the one or more portions of data.

35. The method of claim 31, wherein one or more portions of compressed data can be selectively decompressed.

36. The method of claim 31, wherein when the one or more portions of compressed data are selectively decompressed, one or more portions of other data remain compressed.

37. The method of claim 31, further comprising allowing dynamic access to and updating of a content, a structure and a style of a document.

38. The method of claim 31, wherein the data decompression is based on a document object model for at least one of XML and HTML.

39. The method of claim 31, wherein a document comprises the one or more portions of data, an uncompressed document tree prefix, one or more compressed sub-tree fragments and an uncompressed fragment index.

40. The method of claim 31, further comprising reading at least a portion of a hierarchically structured document.

41. An information storage media comprising information that compresses data comprising:

information that identifies one or more portions of data to be selectively compressed; and

information that compresses the one or more portions of data.

42. An information storage media comprising information that decompresses data comprising:

information that identifies one or more portions of data to be selectively decompressed; and

information that decompresses the one or more portions of data.